

IN THE CLAIMS:

1. (Canceled)
2. (New) A rotatable duct type shrouded rotating wing having a central opening exceeding a radius of approximately 3 m, operating on the principle of a linear motor, and comprising:
  - a fixed shroud with electromagnets for establishing a rotating magnetic field in the interior thereof;
  - a cylindrical rotatable duct horizontally and rotatably mounted within and horizontally spaced from the shroud, the rotatable duct having an outer cylindrical surface and permanent magnets mounted on the outer cylindrical surface, the rotatable duct being vertically supported by the shroud;
  - a plurality of rotor blades having distal ends fixed to an inner periphery of the duct and inner ends fixed to a central hub or shaft; and
  - a rotatable support formed in the shape of a cylinder and vertically sandwiching said rotor blades, the rotatable support being in contact at upper and lower ends with fixed horizontal support surfaces fixed to the shroud, thereby vertically supporting the rotor blades at a position intermediate the inner ends and distal ends of the rotor blades to prevent the rotor blades from being deflected or distorted by their own weight and to limit the influence of both centrifugal force and heat on expansion and contraction of the rotatable duct, the rotatable support being fixed to and rotatable together with the rotor blades.
3. (New) The rotatable duct type shrouded rotating wing according to claim 2 further comprising fixed support rails fixed to the shroud and extending from the shroud to inner ends fixed to the central hub or shaft.
4. (New) The rotatable duct type shrouded rotating wing

according to claim 2 wherein the rotatable duct has a pair of spaced flanges extending radially outward from its outer cylindrical surface and in contact with upper and lower horizontal support surfaces of the shroud through bearings.

5. (New) The rotatable type shrouded rotating wing according to claim 4 wherein the shroud has spaced upper and lower arms presenting, respectively, the upper and lower horizontal support surfaces and extending into the space between the flanges extending from the outer cylindrical surface of the cylindrical rotatable duct.

6. (New) The rotatable type shrouded rotating wing according to claim 5 wherein the cylindrical rotatable duct has a magnet support extending radially outward from its outer cylindrical surface into the space between the upper and lower arms of the shroud and wherein the permanent magnets are mounted in the magnet support.